

## APPENDIX A

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### CONTRACTOR RESUMES

## **Russell Morgan**

### **Senior Project Manager/Senior Estimator**

Russ has over 30 years of experience in the construction and remedial industries with expertise in numerous areas of these disciplines. His expertise includes project management, project oversight, engineering, project estimation, scheduling, quality control, cost control/tracking, and remediation implementation. As a Senior Project Manager Russ has an extensive background in technical support and construction management for various engineering activities, including remediation projects, surface and subsurface excavations. His experience in heavy civil construction and the environmental industry includes expertise in gas extraction and treatment, landfill design and construction, waste water treatment, quality assurance and quality control, project scheduling and cost/ labor analysis, material stabilization, and heavy media separation.

In his current roll Russ is responsible for project estimation and proposal preparation for the implementation of hazardous waste projects in both the private and public sectors. He is integral in the areas of construction management, schedule development and maintenance, cost and labor analysis, client and regulator interfacing, quality control and quality assurance, contracting, and the implementation of field construction activities.

Russ' registrations, licenses and training include:

- 40-Hour OSHA HazMat Training
- 8-Hour OSHA Supervisors' Training
- 8-Hour Annual OSHA Refresher Course
- First-Aid and CPR
- B.S., Mathematics (Minor Physics), (b) [REDACTED]
- M.S., Civil Engineering, (b) [REDACTED]
- Cost Analysis and Construction Scheduling, Preparation and Liability, 1990
- Army Corp of Engineer QA/QC Officer Training
- Forensic Scheduling, 1992
- Engineering, Construction Scheduling and Project Control, 1992

Russ has performed a variety of projects for public and in numerous locations throughout the United States, Canada, and Mexico. The following project descriptions are a small cross section of projects that he has successfully completed during his career. Should additional project information or specific project information be required, a more comprehensive list of projects is available upon request.

### ***Professional Experience***

#### ***Selected Project Experience***

- Lennar Mare Island Vallejo, CA

Approximate Value - \$4.8 MM - project ongoing since 2002

Remedial contracting services as part of the former Mare Island Naval Shipyard redevelopment project team. Work performed on individual task order assignment basis. Over 100 task orders issued thus far into the subcontract. Excavation tasks have involved removal of PCB, petroleum hydrocarbon and heavy metal contaminated soil from source transformer, UST and ship maintenance activity. Extensive interior work involving demolition of wooden, steel and concrete floors/structures to access impacted areas. Significant number of projects involving the decontamination of pipelines, vaults, floor and wall surfaces of Navy infrastructure.

- U.S. Dept. of Energy, Stanford Linear Accelerator Complex Menlo Park, CA

Approximate Value - \$400K

Selective excavation of PCB, petroleum hydrocarbon, and heavy metals contaminated soils from two separate & distinct areas on the Stanford Linear Accelerator Center (SLAC) property while permitting complex activities to continue unimpeded by remedial activities. The Artificial Ridge Excavation area was located on the south edge of a parking lot shared with a water treatment facility and an active research Building. Due to swirling winds in the area NRC was not permitted to stockpile soils. Excavated and loaded ~5,000 cubic yards of PCB contaminated soils from the Artificial Ridge area which were transported and disposed of offsite at a licensed landfill. The second area was the Bone Yard. Approximately 1,200 cubic yards of lead contaminated soils were excavated, loaded, transported and disposed of offsite at a licensed landfill.

- W.R. Grace, San Leandro, CA

Approximate Value - \$1.2MM

Turnkey closure of 60 year old sealant and concrete additives chemical manufacturing complex, including regulatory submittals and permits supporting the work. Project was divided into two major components – the decontamination of various tanks, pipelines, ancillary equipment and structural surfaces associated with the facility as necessitated under the HMBP closure plan and the removal of an underground tank farm used for raw material solvent storage. Removal component featured cleaning and extraction of six (6) UST varying in size from 10K to 35K gallons as well as installation of sheet pile shoring to mitigate groundwater intrusion and sloughing of adjacent roadway.

- Applied BioSystems, Mountain View, CA

Approximate Value - \$400K

Removal of contaminated soils from a confined site located between two substantial concrete structures (major business). Designed and installed a shoring system to secure the excavation and localized soils due to the close proximity of the two concrete structures and ~20 depth of excavation. Performed the project in a manner to permit adjacent businesses to remain operational during the project. Excavated, stockpiled onsite for profiling, loaded, transported, and disposed offsite at a local licensed landfill ~2,000 tons of contaminated soils. Transported, backfilled, compacted and final graded ~2,000 tons of clean backfill in the excavation. Reinstalled concrete curbing, asphalt, irrigation piping, etc. in restoring the site to pre-excavation levels.

- UPRR Former Tracy Railyard, Tracy, CA

Approximate Value - \$950K

The project consisted of two parcels of property, approximately 4.75 acres separated by UPRR main lines at the intersection of North Central Avenue and East Sixth Street a major intersection for the City of Tracy. Approximately 17,000 tons of lead and arsenic contaminated material was excavated from the site with ~2,000 tons disposed offsite at Altamont landfill. Constructed a remote onsite covered stockpile for the ~15,000 tons balance of the spoils for future offsite disposal at an out of state facility. Restoration efforts consisted of the import, placement and final grading of 17,000 tons of clean fill material from a local quarry.

- GEMS Landfill Superfund Project

Approximate Value - \$35MM - duration of slightly less than three (3) years.

Part of a project team tasked with the remediation of 126 acres of contaminated property including a 76-acre landfill. The project included the restoration of an adjoining 43 acre wetlands and 1.5 acre associated lake, installation of a gas extraction system comprised of 155 wells,

associated HDPE carrier piping and gas flare plant. Other components of the project included the installation of a RCRA cap comprised of an HDPE liner and two feet of compacted clay, a drainage sand layer, a fill sand and topsoil layer, a leachate collection and storage system encompassing the entire landfill, gabion channel construction, and various other storm water control features.

- American Cross Arms Residential Soil Removal

Russ managed the remediation of approximately twenty three residences, two apartment complexes and a section of railroad right-of-way. In excess of 7,000 cubic yards of soil contaminated by wood treating compounds (PCP) during a previous flood were removed and transported to a Subtitle C landfill for disposal. Backfill, topsoil, sod, landscaping and other items were restored to, or better than pre-removal condition. The client requested expansion of additional properties and services during the project. The construction activities including sidewalk replacement, parking lot expansion, tree removal, waterline replacement and other items requested by residents and approved by the oversight engineer.

- Oregon Steel Mills

Project Manager for the construction of a six acre repository of waste refractory material. Approximately 140,000 cy of material were graded and contoured to be within 0.1 foot of design specifications. A cap consisting of screened silty sand, impermeable bentonite clay liner and crushed slag was placed to prevent water infiltration and provide a durable wearing surface. Approximately 270,000 square feet of liner was placed and seamed to provide a target permeability of  $1 \times 10^{-5}$  cm/s. 1,500 linear feet of drainage ditch was constructed at the base of the landfill to control stormwater run-off. An access road approximately 1,000 feet long was constructed to provide heavy equipment access to the top of the landfill for utilization of the area for storage of plant materials and products.

- Bonanza Mine Remediation, Sutherlin, Oregon

Project Manager for this remediation work involving the reclamation of a mercury mine process and tailings area. An on-site repository was constructed to receive low level mercury contaminated waste. Mercury contaminated soils, ash, and debris were removed, transported, and disposed of in the on-site repository. A number of concrete and steel buildings, process tanks, troughs, and sumps were selectively demolished to minimize spreading contaminants, and materials were also placed in the containment repository. Contaminated materials in the repository were graded to provide appropriate drainage with a non-woven geotextile layer followed by a double 20 mil liner utilized to “cap” the repository. Sediments removed from process vessels, vaults, and other areas of high mercury concentrations were placed in bulk bags for transport to a retort for proper reprocessing.

- Natural Gas Compressor Station Remediation

Project Manager for a series of projects that encompassed most of the continental United States involving the remediation of PCB contaminated concrete floors, walls, and structures, metal piping and equipment at various natural gas compressor stations along the main natural gas lines bisecting the United States of America. The remediation of PCB contaminated equipment and structures occurred at the various operating natural gas compressor facilities owned by Southern Natural Gas (SNG), El Paso Natural Gas (EPNG), Colorado Interstate Gas (CIG), etc. PCB materials were removed or encapsulated while the facilities continued to operate uninterrupted by the remediation activities.





## **Scott St. John**

Senior Project Manager/Operations Manager

Scott is an experienced Operations and Project Manager and has been with NRC for almost five years. He will serve as the Senior Project Manager on this project. He is an innovative and energetic leader, skilled communicator and team builder with more than 17 years of experience in developing business profitability and managing multidisciplinary cleanup personnel while working both with private enterprise, and on county, state, and federal contracts. Scott has participated in many EPA emergency response projects involving hundreds of different toxic and hazardous materials that require many different methods of sampling, analysis, classification, transport and disposal, and has worked on three major FEMA disaster projects. Scott is also knowledgeable and skilled in working under environmental laws/regulations (RCRA, TSCA, CERCLA, NRC, DOT, OSHA, 40-CFR and state) on county, state and federal projects

Scott's registrations, licenses and training include:

- Haz-Mat Operation Level Certified
- WISA 80-Hour
- OSHA 40-Hour HAZWOPER Training
- OSHA 8-Hour Health and Safety Supervisor Training
- OSHA 8-Hour HAZWOPER Refresher Training
- OSHA 8-Hour Confined Space Entry and Work Practices
- OSHA 4-Hour Confined Space Rescue
- DOT-HMR 49CFR172.704, Subpart H Training
- RCRA 40CFR263 Training
- 40-Hour Certified Radiation Site Safety Officer
- OSHA 10-hour Construction Safety
- Bachelor of Science degree in Environmental Science, Oregon State University, Corvallis, OR

### ***Professional Experience:***

#### **Operations Manager**

*NRC, Seattle, WA 2008 - Present*

Responsible for all Remediation, Industrial Services and Land Emergency Response projects in Washington State. Manage 60+ field operations personnel on a daily basis at multiple local and state wide project sites. Coordinate necessary equipment and personnel for various projects. Review monthly budgets and P&L statements. Develop and maintain working relationships with both new and existing customers. Ensure compliance with all levels of environmental regulations.

#### **General Manager**

*Clean Harbors Environmental Services, SeaTac, WA, 2007- 2008*

Responsible for the business development, oversight and profitability of field service operations for Washington State. Opened the Field Service location in SeaTac and managed the only profitable first year start-up division in company history. Responsibilities included management of P&L, regulatory compliance, health and safety, hiring and managing personnel, employee and community relations, subcontractor oversight, contracting and customer service.

#### **Project Manager**

*Clean Harbors Environmental Services, SeaTac, WA, 2006- 2007*

Provided sales, project management and technical support to multiple remediation projects. Responsibilities included hazardous waste management, proposal preparation, project oversight and technical support for various clients and projects throughout the Western United States.



### **Project Manager**

*Philip Services Corporation (PSC), Kent, WA, 2003 – 2006*

Managed Outside Sales and Support for hazardous waste transportation, disposal, and emergency response services. Provided hazardous waste management, proposal preparation, project oversight and technical support for multiple clients and projects in the Northwest Region.

### **Environmental Agent/Project Manager**

*Accord Construction and Environmental, Inc. , Edmonds, WA, 2002 – 2003*

Provided environmental consulting services for the Port of Seattle and emergency response services for the Drug Enforcement Administration (DEA). Responsibilities include providing hazardous waste management, clandestine drug lab removals, environmental site assessments, and regulatory compliance and technical support to various clients throughout the Northwest.

### **Deputy Program Manager - USEPA Region 6**

*CET Environmental Services, Inc , Fort Worth, TX , 1999 – 2002*

Responsible for contract and site operations management on the EPA Emergency Rapid Response Services contract in Regions 6 (Texas, Oklahoma, New Mexico, Arkansas, and Louisiana). Responsibilities include working closely with U.S. EPA Contracting Officers and On-Scene Coordinators to insure proper client satisfaction and management of all site operations and company personnel within the region.

### **Selected Project Experience**

- University of Washington Mercer Hall, Seattle, WA

Approximate Value - \$4.3 Million

Excavated and removed approximately 30,000 tons of PCS. Coordinated and oversaw the transportation and disposal of over 100,000 tons of soil. Worked closely with General Contractor and University of Washington Project Managers in order to meet budget and project timeline.

- Plum Creek, Ravensdale, WA

Approximate Value - \$1.7 Million

Excavated, stabilized on-site and disposed off-site approximately 15,000 tons of lead contaminated soil from a former non-regulated shooting range. Lead contaminated soils above RCRA levels were stabilized on-site with a liquid reagent process and transported to a Subtitle D landfill for disposal.

- Port of Tacoma (Kaiser Aluminum Plant), Tacoma, WA

Approximate Value - \$8.2 Million

Bid and served as Project Manager for demolition of the former Kaiser Aluminum Reduction Cells site. Assignment involved managing over 45 employees and at least two sub-contractors on a daily basis. Project consisted of the demolition of four pot lines consisting of 386 reduction cells located in 4 buildings. Pot lines were demolished in order to remove 12,000 tons of spent pot liner, managed as a listed K088 waste. Project also involved the oversight and management of all salvage, processing over \$8 million of copper, aluminum and ferrous metal.

## **Ken Koppler**

Health & Safety Officer/CIH

Ken is an experienced Safety Officer, has been with NRC for almost five years and will serve as the Health and Safety Office for this project. He will serve as the Health and Safety Office for this project. He has over 20 years experience in safety, industrial hygiene, public health, radiation protection, environmental protection and loss control management in emergency response, hazardous waste remediation, solid waste treatment, construction and manufacturing. His qualifications include:

- Extensive experience in emergency response, safety, industrial hygiene, and loss control management for petroleum, maritime, construction, demolition and commercial truck manufacturing.
- Development of training and work practice guidelines for occupational hazards including, Department of Transportation, medical waste, noise, ventilation, and ergonomics.
- Indoor air quality expertise /asbestos air monitoring / compliance consultation
- Proficient in all types of air monitoring instruments (PID, FID, Miran, 4-Gas meter)

Ken's registrations, licenses and training include:

- Certified Industrial Hygienist (CIH)
- 40 Hour Hazwoper Trained
- Current 8 Hour Refresher (March 2010)
- NIOSH 582 Sampling/ Evaluating Airborne Asbestos
- Current 8 hour Refresher
- OSHA Hazmat Supervisor Trained
- Red Cross CPR/First Aid Certified
- EPA Method 5 Stack Sampling and Particle Sizing
- B.S., Environmental Health / Ind Hygiene from Oregon State University

### ***Employment History:***

#### **Regional Safety Manager**

NRC, Oregon / Washington / Idaho, (b) (6)

- Develop job hazard analysis and contingency plans for variety of remediation /industrial /maritime sites
- Serve as on-site health and safety Manager for multiple hazardous waste site cleanups (Level A /B/C)
- Investigate accidents /injuries to determine root-cause analysis and implement corrective actions.
- Managed site safety on Emergency Response / Biological Hazards/ Derailments

#### **Safety, Health Manager**

Freightliner, LLC, Portland, OR, (b) (6)

- Develop and manage safety and health programs for Industrial Truck Manufacturing (1000 –3400 employees)
- Conduct annual training and industrial hygiene sampling for welding, painting,
- Conduct job hazards analysis training in manufacturing plants
- Managed Emergency Response teams for all shifts (paints, solvents, battery acid, diesel, )
- Manage Medical Response team for in-plant emergencies
- Manage Confined Space program / air monitoring / permit
- Analyze/ investigate accidents and implement remedial or corrective action measure
- Ensure manufacturing plants are in compliance with federal, state and local laws
- Maintain annual budget encompassing regulatory compliance, protective equipment and ergonomic engineering



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**Certified Industrial Hygienist**

*Marine Environmental Testing, Portland, OR, (b) (6)*

- Develop site-specific emergency contingency plans for clients including Exxon, Arco, Chevron
- Develop and conduct hazard recognition and training programs
- Perform site safety and IH management for major petroleum turn around projects
- Conduct comprehensive safety and health surveys during crude oil drilling, pumper tanker loading and shipping operations on-board Exxon fleet of tankers;
- Develop and conduct site specific regulatory safety and health training.
- Conducted asbestos, lead, mold and “phantom odor “ clearance sampling

**Site Safety Officer / Industrial Hygienist**

*Riedel Environmental Services, Portland, OR, (b) (6)*

- Developed job hazard analysis and contingency plans for crude oil remediation site in Kenai, Alaska
- Served as on-site health and safety office for multiple hazardous waste site cleanups (Level A /B/C)
- Investigate accidents /injuries to determine root-cause analysis and implement corrective actions.
- Managed site safety on Radiological contamination sites



## **Scot Overdick**

### **Project Manager**

Scot is an experienced Project Manager that has been with NRC for six years. He manages and performs excavation and remediation services for NRC customers. These projects primarily include UST removals, contaminated soil removal, remediation system services and cleanups related to hazardous materials incident emergency responses. Remediation system services include design support, construction, startup, operation, maintenance and decommissioning of soil and groundwater remediation equipment systems. He specializes in remedial system design support, field system implementation coordination, subcontractor oversight, system component budgeting, monitoring system operation, and system performance optimization, excavation project design support, oversight, and management.

Scot will serve in the Project Manager role under this contract.

Scot has fulfilled the training, education, certificate, and professional requirements listed below.

#### **Safety Credentials and Training**

- OSHA HAZWOPER - 80 Hours
- OSHA Annual Update
- OSHA Supervisory Training
- PPE Qualified For Level A
- Respirator Fit Tested
- First Aid / CPR Trained with Annual Updates
- Forklift Operation

#### **Relevant Certifications and Specialized Training**

- UST Decommissioning – International Code Commission Certified
- Washington State Certified Site Assessor
- Respirator Wearer and Maintenance
- Respirator (including SCBA) Training
- Erosion Control Certification by Association of General Contractors
- USACE Construction Quality Management for Contractors
- Various Railroad and Fuel Company Safety Training

#### ***Experience:***

Scot has 21 years of experience in the environmental services industry. He has gained field, supervisory, and management experience in numerous areas of remediation including hazardous demolition, soil remediation, waste categorization, lab packing, and emergency response. Scot's work experience includes heavy civil construction industry, environmental consulting, and project supervisor and manager for environmental contractors.

His expertise in soil and groundwater remediation, and skills as a heavy equipment operator, make him integral to the overall scope of services provided by NRC.

#### **Selected Project Experience**

- Gasoline Spill, Wiskah School District, Ecology, Aberdeen, Washington  
Project Manager overseeing the pump and treat system and site restoration on this project initiated started by another firm.
- City of Kent, Washington  
Project Manager overseeing the draining of a retention pond and coordination of its restoration and remediation of impacted soil after a residential diesel tank released diesel into the pond.
- Major Railroad Company, Ft. Lewis, Washington  
Field Supervisor managed crew and remedial portion of the fuel oil cleanup from this train derailment.
- Pettit Oil, Des Moines, Washington

Project Manager for this tanker fire cleanup of a wetland habitat along Hwy 8.

- Diesel Spill, Puget Sound Energy, Crystal Mountain, Washington  
Project Manager scheduling and coordinating crews and equipment, and serving as liaison with local, state and federal agencies on the cleanup for this 18,000-gallon diesel release. An ICS inter-agency ICS command center was established and maintained cleanup efforts complicated by snow and rough terrain.
- Olympic Pipe Line Company - Renton, Washington  
Installed 1,000 linear feet of underground piping, 20 air sparge wells, 14 vapor extraction wells, and a thermal oxidizer soil vapor treatment system.
- Olympic Pipe Line Company, Bellingham, Washington  
Installed several thousand feet of underground and aboveground piping, 15 vapor extraction wells, nine air sparge wells, and four groundwater extraction wells. Also installed a fractured rock formation groundwater extraction system consisting of a horizontal drain well and multiple vertical collection wells. Also constructed treatment system consisting of batch tanks, an oil/water separator, pneumatic pumps, a tray stripper, a catalytic oxidizer, an air compressor and an activated carbon treatment package.
- Port of Tacoma, Milwaukee Rail yard, Tacoma, Washington  
Installed 6,000 linear feet of underground piping, 400 feet of aboveground piping, and 30 groundwater extraction wells with double diaphragm pumps, 45 vapor extraction wells with two thermal oxidizers, batch tanks, an oil/water separator, a bioreactor using induced oxygen, a sand filter groundwater treatment system, and a discharge connection to sanitary sewer.

## **APPENDIX B**

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### INITIAL PROJECT SCHEDULE



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**APPENDIX C**

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**SITE PLAN**





Appendix C: Site Plan



## APPENDIX D

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### CONSTRUCTION CHECKLIST

## **APPENDIX D**

### **T-117 Residential Yards Cleanup**

#### **Removal Action Work Plan Construction Checklist**

The following items must be in place and operational prior to the start of any site work.

- ☐ Copies of the Construction Health and Safety Plan and Community Health and Safety Plan
- ☐ Copy of the Construction Drawings and Technical Specifications
- ☐ Copy Of The Removal Action Work Plan, Including All Appendices
- ☐ First Aid Kits, Fully Stocked
- ☐ Spill Kits, Fully Stocked
- ☐ Erosion and Sediment Controls
- ☐ Spill Prevention Controls
- ☐ Delineated Exclusion Zones and Contaminant Reduction Zones
- ☐ Approved Soil Disposal Profiles
- ☐ Soil Disposal Bill of Ladings/Manifests
- ☐ Location Identification of All Utilities

## **APPENDIX E**

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### **CONTRACTOR HEALTH AND SAFETY PLAN**



# CONSTRUCTION HEALTH AND SAFETY PLAN

Seattle City Light; T-117 Residential Yards Cleanup

NRC PROJECT PERSONNEL AND EMERGENCY CONTACTS		
Project Manager	Russell Morgan	503-849-0753
Project Supervisor	Scot Overdick	425-417-5344
Safety Officer	Scot Overdick	425-417-5344
Safety Manager	Ken Koppler, CIH	971-285-0450
Remedial Project Manager	Piper Peterson, EPA	206-719-0740
Agency Construction Oversight Manager	Jayson Osborne, USACE	206-369-2615
City Project Coordinator	Mary Mitchener, SCL	206-369-3132
City Resident Engineer	Eric Pilcher, Integral	253-370-5894
Hospital	Highline Medical Center	206-431-5314

**Date: October 2012**

**Job Number: #70687**

• Land Emergency Response • Marine Emergency Response **X: Land Service** • Marine Service

<b>PROJECT DESCRIPTION</b>	This Construction Health and Safety plan has been developed to provide a safe work environment for the work to be performed at various residential locations in South Park, Seattle, WA as outlined below. Chemical hazards on the project include low level poly-chlorinated biphenyl (PCBs).
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<b>SCOPE OF WORK</b>	<p><b><u>Mobilization / Site Preparation</u></b></p> <ul style="list-style-type: none"> <li>• Site orientation prior to work assignment ( layout, ingress; egress; Decontamination area, emergency evacuation, phones)</li> <li>• Conduct daily safety meeting with onsite personnel.</li> <li>• Build haul road for transportation of contaminated soils across sidewalks.</li> <li>• Install temporary wheel wash unit for decontamination if necessary</li> <li>•</li> </ul> <p><b><u>Remediation of contaminated soil</u></b></p> <ul style="list-style-type: none"> <li>• Excavate PCB contaminated soils in the following locations as directed.</li> <li>• 8523 Dallas Ave S. Approximately 120 cubic yards (CY) to depth of 12 inches.</li> <li>• 1410 S. Cloverdale St. Approximately 260 CY to depth of 24 inches.</li> <li>• 1421 S. Cloverdale St. Approximately 20 CY to depth of 18 inches.</li> <li>• 1425 S. Cloverdale St. Approximately 205 CY to depths of 24 &amp; 30 inches.</li> <li>• 1440 S. Cloverdale St. Approximately 255 CY to depth of 12 inches.</li> <li>• 1445 S. Cloverdale St. Approximately 45 CY to depth of 6 inches.</li> <li>• 1418 S. Donovan St. Approximately 95 CY to depth of 24 inches.</li> <li>• S. Cloverdale Planting Strips. Approximately 225 CY to depth of 12 to 24 inches.</li> <li>• Alleyways between S. Cloverdale St and S Donovan. Approximately 495 CY to depth of 12 to 36 inches.</li> <li>• Segregate waste as directed according to waste profiles.</li> <li>• Direct load to the degree possible or stockpile waste on site for load out and transportation.</li> <li>• Effected employees/PPE will be properly decontaminated or removed prior to leaving the contamination reduction zone.</li> </ul> <p><b><u>Restoration</u></b></p> <ul style="list-style-type: none"> <li>• Import clean soil to grade specifications per plan</li> <li>• Compact soil with compactor as appropriate</li> <li>• Install plantings and other features as illustrated on the project drawings</li> </ul> <p><b><u>Decontaminate Equipment</u></b></p> <ul style="list-style-type: none"> <li>• Dry, gross decon of equipment prior to handling import material or leaving the site.</li> <li>• Pressure wash equipment and tools if necessary.</li> <li>• Pump contaminated decon liquids into containers or vacuum truck.</li> <li>• Hexane wipe samples will be conducted on impacted machinery prior to demobilization from the site.</li> </ul>
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## CONSTRUCTION HEALTH AND SAFETY PLAN

Seattle City Light; T-117 Residential Yards Cleanup

<b>EQUIPMENT</b>	<ul style="list-style-type: none"> <li>• Excavators</li> <li>• Air/hydro vactor</li> <li>• Dump trucks / Drop Boxes</li> <li>• Crew trucks</li> <li>• Skid Steer loader</li> <li>• Drop boxes</li> <li>• Compactor</li> <li>• Decontamination Pool &amp; Supplies</li> <li>• Pressure washer</li> <li>• Pumping system with hoses</li> </ul>
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### CHEMICAL INFORMATION (see attached MSDS )

CHEMICAL / CAS	CHEMICAL PROPERTIES	EXPOSURE LIMITS	ROUTES OF ENTRY	SYMPTOMS
PCB Chlorodiphenyl < 30 ppm	<input type="checkbox"/> VP = 0.001 mmHg <input type="checkbox"/> pH = 12.0 – 14.0 <input type="checkbox"/> FP = N/a	PEL = 0.5 mg/m <sup>3</sup> (skin) IDLH = Ca 5 mg/m <sup>3</sup>	<input type="checkbox"/> Inhalation <input type="checkbox"/> Ingestion <input type="checkbox"/> absorption	Irritate eyes; chloracne; liver damage; reproductive system
Dioxins and Furans TCDD & PCDF	<input type="checkbox"/> VP = <0.00002 mmHg	PEL = NA IDLH = NA EPA limits 0.00003 ug/l in water 50 ppt in fish/shell fish	<input type="checkbox"/> Inhalation <input type="checkbox"/> Ingestion	Kidney damage Reproductive cancers, general carcinogen

### PERSONAL PROTECTIVE EQUIPMENT

TASK	Level	MASK /CARTRIDGE /AIR	ADDITIONAL PPE
Establish support/site setup / prepare, build haul road if required	<b>D</b>	N/A	Hardhats, safety glasses, cotton coveralls, high visibility vest, leather gloves, steel toe boots
Excavation of low level contaminated soil (<30 ppm PCB). With Dust suppression.	<b>D*</b>	N/A	Hardhats, hearing protection as required, safety glasses, high visibility vest, blue jean or muted colored Tyvek , Nitrile inner gloves, outer work gloves (typically leather), rubber steel toe boots.
General Labor (Hot zone work)	<b>D*</b>	NA	Hardhats, hearing protection as required, safety glasses, high visibility vest, blue jean or muted colored Tyvek, Nitrile inner gloves, outer work gloves (typically leather), rubber steel toe boots
Apply Water for Dust Control if needed	<b>D</b>	NA	Hardhats, hearing protection as required, full face shield or safety glasses, high visibility vest, blue jean or muted colored tyvek, Nitrile inner gloves, outer work gloves (usually leather), rubber steel toe boots
Decontaminate Equipment Dry Method - after completion of hot zone work	<b>D</b>	NA	Hardhats, safety glasses or face shield, hearing protection if required, high visibility vest, blue jean or muted colored tyvek, Nitrile inner gloves, outer work gloves, rubber steel toe boots
Decontaminate Equipment Wet Method – after completion of hot zone work	<b>D</b>	NA	Hardhats, safety glasses or face shield, hearing protection if required, high visibility vest, blue jean or muted colored tyvek, Nitrile inner gloves, outer work gloves, rubber steel toe boots



## CONSTRUCTION HEALTH AND SAFETY PLAN

Seattle City Light; T-117 Residential Yards Cleanup

Restoration	D	N/A	Hardhats, safety glasses, cotton coveralls, hearing protection as required, high visibility vest, gloves, leather or other appropriate to task, leather steel toe boots
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\* Level D decision is based on wet dust free conditions with airborne dust levels documented below 1.0 mg/m3.

### SAFETY EQUIPMENT REQUIRED:

✓ Eyewash	✓ Decon Pool / Supplies	✓ Hazard Warning signs
✓ First Aid Kit	✓ Fire Extinguisher	✓ Barricades / rope
✓ MiniRam dust meter	✓ Dosimeter - noise	

### TRAINING / DOCUMENTATION REQUIREMENTS:

TRAINING/DOCUMENTATION	TRAINING REQUIRED FOR:
✓ HAZWOPER 40	All NRC field crew & Surveyors
✓ Current 8 Hour Refresher	All NRC field crew & Surveyors
✓ HAZWOPER Supervisor	Minimum NRC Project Manager & Project Supervisor
✓ Medical Fit for Duty	All NRC field crew & Surveyors
✓ First Aid/CPR	Minimum two (2) with CPR & two (2) with first aid (may be same 2)
✓ Qualified Equipment Operators	Required for excavator & loader operators
✓ Excavation Competent Person	Minimum one (1) per excavation location greater than 2'
✓ Qualified Drivers (Class A/B Hazmat Endorsement)	All truck drivers hauling hazardous waste

### ACTIVITY HAZARD ANALYSIS

Hazards Throughout the Job		
ITEM	HAZARD	PREVENTION
General Work Area	Slip / trip / fall	<ul style="list-style-type: none"> <li>designated pathways cleared of debris</li> </ul>
General Work Area – lifting	Strain	<ul style="list-style-type: none"> <li>plan and stage to minimize long distance carrying</li> <li>split heavy loads into smaller loads</li> <li>use assistant for heavy or awkward load</li> </ul>
General Work Area –Traffic	Struck by	<ul style="list-style-type: none"> <li>Set up visible barricades on access roads;</li> <li>Wear high visibility safety vests</li> </ul>
Prolonged Exposure to Elements	Dehydration Heat stress Sunburn Cold/Wet Hypothermia	<ul style="list-style-type: none"> <li>Crews in white or light colored Tyvek to cover skin</li> <li>Drink plenty of non-diuretic fluids and break in shaded area</li> <li>Work rest schedule</li> <li>Sun block on all exposed skin</li> <li>Wear appropriate water repellent clothing to avoid getting wet</li> <li>Change out of wet clothing</li> </ul>
Traffic	Struck by	<ul style="list-style-type: none"> <li>Set up visible barricades</li> <li>Flaggers present during work activities</li> <li>Only authorized NRC personnel in work zones</li> </ul>
Break time	Ingestion	<ul style="list-style-type: none"> <li>Thoroughly wash hands before eating, drinking, smoking,</li> </ul>
Refueling Equipment	Fire	<ul style="list-style-type: none"> <li>Fire extinguishers within 50 feet of work area</li> <li>Extinguishers must be fully charged and monthly inspected</li> <li>Area in front of extinguishers must be kept clear</li> <li>Solvent waste and oily rags kept in fire resistant , covered containers</li> </ul>





## CONSTRUCTION HEALTH AND SAFETY PLAN

Seattle City Light; T-117 Residential Yards Cleanup

Hazards Throughout the Job		
ITEM	HAZARD	PREVENTION
		<ul style="list-style-type: none"> <li>Flammable liquids must be kept in explosion proof containers</li> <li>Operator present at all times</li> </ul>
Employee Safety	Task assess	<ul style="list-style-type: none"> <li>Employees will perform a Self Performance Safety Assessment (SPSA) prior to each task</li> <li>Employees have stop work authority (SWA) in the event they discover a hazard not previously identified</li> <li>Employee will contact Project supervisor with SWA</li> </ul>

Hazards Unique to Each Phase of Project		
ITEM	HAZARD	PREVENTION
Mobilization to site	<ul style="list-style-type: none"> <li>Site Security</li> <li>Slips, Trips, Falls</li> <li>Traffic</li> <li>Overhead Hazards</li> </ul>	<ul style="list-style-type: none"> <li>Barrier tape drop off area</li> <li>Visual barriers will be in place during work hours, and when site is unattended.</li> <li>Site has traffic through and adjacent to the work area, limit all walking and access to set points</li> <li>All overhead hazards for each location will be noted on the daily tailgate safety meeting and considered when staging equipment. In the event that overhead hazards cannot be removed or controlled, operators will proceed with approval and direct supervision of the Project Supervisor.</li> </ul>
Behavior Based Safety	Hazard identification	<ul style="list-style-type: none"> <li>Project Manager will remind crew before start of each shift of their responsibility to perform an SPSA before each task</li> <li>Project Manager will remind crew of their authority to Stop Work &amp; contact Project supervisor if they discover a hazard</li> <li>Project Manager will conduct / document a task observation / audit on a weekly basis using the NRC site audit form</li> </ul>
Unloading Equipment	Struck by Fall	<ul style="list-style-type: none"> <li>Secure area of unauthorized personnel</li> <li>Refer to attached AHA on load / unload / transport</li> <li>Verify before lifting all hoses are bundled &amp; secured in a roll</li> <li>Do not throw equipment from truck</li> <li>Lift any object over 50 lbs with assistance</li> </ul>
Site Access	Unauthorized personnel	<ul style="list-style-type: none"> <li>Site access limited to NRC and authorized personnel during all work activities.</li> <li>Barricades will provide easily visible warnings (temporary fence panels, caution tape, barricades, traffic zones, traffic delineators)</li> <li>Daily tool box safety meeting sign in sheet will be used to document briefing and personnel authorized to enter</li> <li>Authorized visitors will only be allowed on the site during designated work hours</li> </ul>
Hygiene Facilities	Contaminant spread	<ul style="list-style-type: none"> <li>NRC will provide portable toilet facilities near work zone</li> <li>NRC will provide hand wash (soap/water) near break area</li> </ul>
Equipment & construction operations (Noise Control)	Excessive noise	<ul style="list-style-type: none"> <li>Equipment engines may exceed 85 dbA for operators &amp; site workers</li> <li>Equipment will utilize mufflers &amp; silencers to extent possible</li> <li>Hearing protection worn during operation or in vicinity of equipment</li> <li>Establish work zone limits to minimize or eliminate public/resident exposure to noise levels above 85 dbA</li> <li>Avoid lingering in equipment operating &amp; traffic areas to extent possible</li> <li>Use hearing protection when around equipment,</li> </ul>



## CONSTRUCTION HEALTH AND SAFETY PLAN

Seattle City Light; T-117 Residential Yards Cleanup

Hazards Unique to Each Phase of Project		
		<ul style="list-style-type: none"> <li>trucks, &amp; other construction noise</li> <li>Use phones only when absolutely necessary for work communication or site emergency</li> </ul>
Excavation, loading, Compacting, and transportation activities	Struck by Noise PCBs Falls	<ul style="list-style-type: none"> <li>PPE on page 2</li> <li>Personnel will remain 4' or more from excavation leading edge.</li> <li>Hearing protection</li> <li>Back up alarms or rotating beacons</li> <li>Keep unauthorized personnel out of operating areas</li> <li>Train personnel on working safely around equipment</li> <li>Wear Reflective Vests</li> <li>Make eye to eye contact between operator/driver;</li> <li>signal or communicate movements</li> <li>Equipment operator controls movement of personnel in and out of swing zone or equipment travel area</li> <li>Stay clear of swing zone of equipment</li> </ul>
Heavy Machinery	Equipment failure  Slips, trips, falls  Overhead hazards  Not in use	<ul style="list-style-type: none"> <li>Conduct pre-operation inspection of all parts including connections.</li> <li>Ensure grease and spare parts are available in case of failure</li> <li>Inspect fire extinguishers on equipment</li> <li>Never operate machinery outside of manufacturer's specifications</li> <li>Never alter equipment</li> <li>Board machinery using handrails and maintain three points of contact at all times.</li> <li>Ensure surfaces and boots are dry and free from debris</li> <li>Power lines and other structures on site may interfere with operation of equipment. Where these hazards cannot be removed or controlled, the operator will only proceed with approval and direction from the Safety Officer.</li> <li>When equipment is not in use, ensure parking brake is set &amp; equipment is staged on level ground, not blocking entry /exit paths.</li> </ul>
Dust Mitigation	Dust levels greater than 1 mg/m3	<ul style="list-style-type: none"> <li>Water will be sprayed periodically over exposed work area</li> <li>Air monitoring will be conducted at perimeter of work zones</li> <li>Follow Action levels defined in air monitoring section</li> </ul>
Break Time	Ingestion	<ul style="list-style-type: none"> <li>Thoroughly wash hands before eating, drinking or smoking, applying cosmetics, putting on sunscreen etc.</li> </ul>
End of Work Day	Absorption Contaminant spread	<ul style="list-style-type: none"> <li>Place contaminated clothes in closed plastic bag</li> <li>Remove contaminated clothing per decon section guidelines</li> <li>Change into clean clothes before leaving site</li> <li>Wash hands and face thoroughly</li> </ul>
Decontaminate Equipment	Electrical Contact PCB Noise Spill Fall	<ul style="list-style-type: none"> <li>PPE on page 2</li> <li>Contain all run off</li> <li>Ladder or scaffolding will be placed to provide a safe working surface and avoid climbing on and off of equipment</li> <li>Remove all contaminated water</li> </ul>
Decontaminate Personnel	Absorption Contamination	<ul style="list-style-type: none"> <li>Follow decon plan for clothing removal / disposal</li> <li>Wash hands and face thoroughly.</li> </ul>
Demobilization	Cuts from removing barrier tape Strain	<ul style="list-style-type: none"> <li>PPE on page 2</li> <li>Enforce housekeeping regulations at all times.</li> </ul>



## CONSTRUCTION HEALTH AND SAFETY PLAN

Seattle City Light; T-117 Residential Yards Cleanup

### DECONTAMINATION AND DISPOSAL

<b>DECONTAMINATION PLAN</b>	<input type="checkbox"/> Establish transition zone with small decon area <input type="checkbox"/> Provide carpet pieces on vinyl walkway to reduce slip hazard <input type="checkbox"/> Place empty lined drums for contaminated PPE <input type="checkbox"/> Remove boot covers or wash neoprene boots <input type="checkbox"/> Untape gloves and boots <input type="checkbox"/> Remove outer gloves <input type="checkbox"/> Unzip suit / pull off hood <input type="checkbox"/> Roll down suit and place into container <input type="checkbox"/> Remove respirator and put into rinse area (if applicable) <input type="checkbox"/> Remove inner gloves and place into container
<b>DISPOSAL PLAN</b>	<input type="checkbox"/> Place contaminated suits in secured drum liners and place in disposal containers <input type="checkbox"/> Liquid waste generated will be disposed offsite as directed by client

### EMERGENCY MEDICAL TREATMENT AND FIRST AID

TYPE CONTACT	FIRST AID
<b>Eyes</b>	<ul style="list-style-type: none"> <li>• Flush each eyes continuously for 15 minutes;</li> <li>• Tilt head to side to ensure liquid runs onto floor not other eye</li> <li>• refer to EMT for evaluation</li> </ul>
<b>Skin</b>	<ul style="list-style-type: none"> <li>• Remove contaminated clothing immediately</li> <li>• Wash skin continuously for 15 minutes;</li> <li>• refer to physician if redness, swelling, or pain persists after washing</li> </ul>
<b>Breathing</b>	<ul style="list-style-type: none"> <li>• Call 911;</li> <li>• Remove to fresh air immediately;</li> <li>• begin CPR until EMT arrives</li> </ul>
<b>Ingestion</b>	<ul style="list-style-type: none"> <li>• aspiration hazard</li> <li>• do not induce vomiting</li> <li>• do not give anything by mouth</li> </ul>

### ACCIDENT REPORTING

FIRST AID INJURIES REQUIRING MEDICAL TREATMENT VEHICLE ACCIDENT NEAR MISS	<input type="checkbox"/> Employees immediately report all accidents or incidents to the Safety Officer Scot Overdick 425-417-5344 or Project Manager Russell Morgan 503-849-0753 if Scot is unreachable <input type="checkbox"/> Project Supervisor/Safety Officer will immediately notify the Safety Manager, Ken Koppler (971-285-0450), and the City's Resident Engineer, Eric Pilcher (253-370-5894). Safety Manager will provide employee disposition guidelines and coordinate an accident investigation either by himself or Project Supervisor <input type="checkbox"/> Accident reporting forms are included in Appendix A <input type="checkbox"/> Determination will be made regarding need for post accident drug testing
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## CONSTRUCTION HEALTH AND SAFETY PLAN

Seattle City Light; T-117 Residential Yards Cleanup

### EMERGENCY RESPONSE PLAN

[Attach Map to Nearest Hospital](#)

ELEMENT	LOCATION, SPECIFICATION OR REASON FOR USE
NEAREST HOSPITAL	<b>Highline Medical Center</b> <b>16251 Sylvester Road SW</b> <b>Burien, WA 98166</b> <b>206-431-5314</b>
NEAREST PHONE	Project Supervisor, Scot Overdick, cell phone 425-417-5344
FIRST AID KIT	NRC Field Office Trailer & NRC pickup trucks
FIRE EXTINGUISHER	NRC Field Office Trailer, NRC pickup truck, and work zone fire extinguisher(s) as identified during daily H&S meeting
EYEWASH STATION	Emergency eyewash located at contamination reduction zone
EVACUATION ROUTE / MEETING POINT	Determine after arrival at individual site Draw on site map Discuss with crew during daily tailgate before start of entry

# CONSTRUCTION HEALTH AND SAFETY PLAN

## Seattle City Light; T-117 Residential Yards Cleanup

## CONSTRUCTION HEALTH AND SAFETY PLAN APPROVAL

**Safety Officer** \_\_\_\_\_ **Date** \_\_\_\_\_

[illegible]



# CONSTRUCTION HEALTH AND SAFETY PLAN

Seattle City Light; T-117 Residential Yards Cleanup

## ATTACHMENT A

### NRC Accident Investigation Forms



#### Accident / Injury / Investigation Root Cause Analysis



PART 1: ADMINISTRATIVE INFORMATION				
<b>PNW REGION:</b> <input type="checkbox"/> Seattle <input type="checkbox"/> Spokane <input type="checkbox"/> Tacoma <input type="checkbox"/> Portland <input type="checkbox"/> _____			<b>REPORT STATUS (time due):</b> <input type="checkbox"/> Initial (24hr) <input type="checkbox"/> Final (5-10 days)	
<b>INCIDENT TYPES:</b> From lists below, please select option that best categorizes the incident. When selecting an Injury or Illness, also indicate the severity level.			<b>REPORT TYPE</b> <input type="checkbox"/> Recordable <input type="checkbox"/> First Aid <input type="checkbox"/> Near Miss <input type="checkbox"/> _____	
<input type="checkbox"/> <b>INJURY</b> <input type="checkbox"/> <b>ILLNESS</b> -----Severity Level----- <input type="checkbox"/> Fatality <input type="checkbox"/> Lost Time <input type="checkbox"/> Restricted Work <input type="checkbox"/> Medical Treatment <input type="checkbox"/> First Aid			<b>OTHER INCIDENT TYPES</b> <input type="checkbox"/> Spill / Release <input type="checkbox"/> Property Damage <input type="checkbox"/> Motor Vehicle <input type="checkbox"/> Citation _____	
<b>PERSONNEL INVOLVED</b> <input type="checkbox"/> NRCS Employee <input type="checkbox"/> Contractor <input type="checkbox"/> Subcontractor <input type="checkbox"/> Third Party				
DATE		EMPLOYEE NAME		
TIME <input type="checkbox"/> AM <input type="checkbox"/> PM		COMPANY NAME		
CAUSE OF INCIDENT		TASK		BODY PART AFFECTED
INCIDENT LOCATION		INJURY		NRCS SUPERVISOR'S NAME
SUPERVISOR'S PHONE NUMBER		SAFETY MGR NAME		PROPER NOTIFICATIONS MADE <input type="checkbox"/> Yes <input type="checkbox"/> No
SAFETY MGR CONTACT PHONE NUMBER		COMPANY NAME / # YRS. WORKING / # YRS. IN CURRENT POSITION /		
LIST INDIVIDUALS INVOLVED IN THE INCIDENT AND THEIR OCCUPATION				
ESTIMATED COST OF INCIDENT:		IF A SPILL / RELEASE - MATERIAL INVOLVED:		TOTAL QUANTITY: _____ U.S. GALLONS
PART 2: WHAT HAPPENED AND INCIDENT DETAILS				
WHAT HAPPENED? DESCRIPTION OF INCIDENT (EXPLAIN THE SEQUENCE OF EVENTS AND ALL PERTINENT FACTS INCLUDING RESPONSE ACTIONS TAKEN). IF AN INJURY OR ILLNESS, DESCRIBE THE INJURY AND TREATMENT GIVEN.				
POST ACCIDENT DRUG TEST CONDUCTED <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsafe Condition / supervisor had no control <input type="checkbox"/> Unsafe Condition: Supervisor had knowledge <input type="checkbox"/> Unsafe Act / Employee had control				
ATTACHED INFORMATION: <input type="checkbox"/> PHOTO <input type="checkbox"/> SKETCHES <input type="checkbox"/> NEWSPAPER <input type="checkbox"/> VEHICLE REPORT <input type="checkbox"/> OTHER (Check all that apply)				
3RD PARTY INJURY or PROPERTY DAMAGE	NAME	ADDRESS		PHONE
	DESCRIPTION OF INJURY / DAMAGE			
WITNESSES	NAME	STREET ADDRESS	CITY/STATE	PHONE
	N/A			
WHO WAS NOTIFIED				
COMMENTS				
PREPARED BY		PREPARER'S TITLE	PHONE	DATE PREPARED



# CONSTRUCTION HEALTH AND SAFETY PLAN

Seattle City Light; PCB Remediation



## Accident / Injury / Investigation Root Cause Analysis



PART 3: ROOT CAUSE ANALYSIS				
CONCLUSION: WHY IT HAPPENED (LIST & NUMBER ROOT CAUSES)				
ROOT CAUSE(S) AND SOLUTION(S): HOW TO PREVENT INCIDENT FROM RECURRING				
ROOT CAUSE #	SOLUTION(S) / RECOMMENDATIONS [Must Match Root Cause]	PERSON RESPONSIBLE TO FIX	AGREED DUE DATE	COMPLETION DATE
INVESTIGATION TEAM:				
PRINT NAME	JOB POSITION	DATE	SIGNATURE	
PART 4: FOLLOW – UP ACTIONS				
QUALITY REVIEW QUESTIONS				
Were the root causes identified? <input type="checkbox"/> Yes If no, explain: _____				
Do root cause and recommendation "match"? <input type="checkbox"/> Yes If no, explain: _____				
Is the recommendation feasible and maintainable? <input type="checkbox"/> Yes If no, explain: _____				
Is this a repeat incident? <input type="checkbox"/> No If yes, explain: _____				
GM REVIEWED BY: ( See questions above)				
PRINT NAME	JOB POSITION	DATE	SIGNATURE	
RESULTS OF VERIFICATION AND VALIDATION				
Verification: Were the solutions implemented? Explain: _____				
Validation: Were the solutions effective in addressing the root causes? Explain: _____				
VERIFICATION AND VALIDATION BY: ( See questions above)				
PRINT NAME	JOB POSITION	DATE	SIGNATURE	





# CONSTRUCTION HEALTH AND SAFETY PLAN

Seattle City Light; PCB Remediation



## ATTACHMENT B

Project Manager: Russell Morgan		Project Supervisor: Scot Overdick	
Job Number: #70687		Safety Officer: Scot Overdick	
<b>ACCIDENTS/ INCIDENTS/ INJURIES / NEAR MISS/ PROPERTY DAMAGE / CREW SUGGESTIONS</b> After an injury/accident/near miss is reported, the PM or Project Supervisor must call the H & S Manager at 971-285-0450			
<b>Before Shift</b> (write in "none" if 0 to report)			
Supervisor signature acknowledging _____			
<b>After Shift:</b> (write in "none" if 0 to report)			
Supervisor signature acknowledging _____			
<b>BEHAVIOR BASED SAFETY REMINDER TO ALL EMPLOYEES</b>			
<ul style="list-style-type: none"> <li>• Make a Safe Performance Self Assessment before each task (SPSA)</li> <li>• Stop Work Authority (SWA): you have authority to stop work and report an unsafe situation</li> <li>• Report unsafe conditions /strain /near misses to your Project supervisor when they happen</li> </ul>			
Task #	<b>PROJECT TASKS</b>		
<b>HAZARD COMMUNICATION - / CHEMICAL HAZARDS (call Safety Manager for input ) ** MSDS REVIEWED <input type="checkbox"/></b>			
Name of Chemical	PEL / Route of Entry	Monitoring Instrument	* Action Level
<b>PCB</b>	0.5 mg/m <sup>3</sup> / Ingestion, inhalation, absorption	<b>NA – will monitor for dust levels</b>	Prevent Skin Contact
<b>WORK TASK</b>	<b>*PPE (mark each box if required)</b>		
	<input checked="" type="checkbox"/> Hard Hat <input checked="" type="checkbox"/> Safety Glasses <input type="checkbox"/> Goggles <input type="checkbox"/> Face Shield <input type="checkbox"/> Ear Plug/Muffs <input checked="" type="checkbox"/> Long sleeve shirt or coveralls <input type="checkbox"/> PFD <input type="checkbox"/> Tyvek <input type="checkbox"/> Rain Gear <input type="checkbox"/> Nomex <input type="checkbox"/> Acid Suit <input checked="" type="checkbox"/> Steel Toe Boots <input type="checkbox"/> HAZMAT Booties <input type="checkbox"/> Tyvek Booties <input type="checkbox"/> Leather Gloves <input type="checkbox"/> Gloves <input type="checkbox"/> Nitrile Liners <input type="checkbox"/> High Vis Gloves <input type="checkbox"/> Safety Vest <input type="checkbox"/> Half-face respirator <input type="checkbox"/> Full-face respirator <input type="checkbox"/> Cartridge		
	<input checked="" type="checkbox"/> Hard Hat <input checked="" type="checkbox"/> Safety Glasses <input type="checkbox"/> Goggles <input type="checkbox"/> Face Shield <input type="checkbox"/> Ear Plug/Muffs <input checked="" type="checkbox"/> Long sleeve shirt or coveralls <input type="checkbox"/> PFD <input type="checkbox"/> Tyvek <input type="checkbox"/> Rain Gear <input type="checkbox"/> Nomex <input type="checkbox"/> Acid Suit <input checked="" type="checkbox"/> Steel Toe Boots <input type="checkbox"/> HAZMAT Booties <input type="checkbox"/> Tyvek Booties <input type="checkbox"/> Leather Gloves <input type="checkbox"/> Gloves <input type="checkbox"/> Nitrile Liners <input type="checkbox"/> High Vis Gloves <input type="checkbox"/> Safety Vest <input type="checkbox"/> Half-face respirator <input type="checkbox"/> Full-face respirator <input type="checkbox"/> Cartridge		
	<input checked="" type="checkbox"/> Hard Hat <input checked="" type="checkbox"/> Safety Glasses <input type="checkbox"/> Goggles <input type="checkbox"/> Face Shield <input type="checkbox"/> Ear Plug/Muffs <input checked="" type="checkbox"/> Long sleeve shirt or coveralls <input type="checkbox"/> PFD <input type="checkbox"/> Tyvek <input type="checkbox"/> Rain Gear <input type="checkbox"/> Nomex <input type="checkbox"/> Acid Suit <input checked="" type="checkbox"/> Steel Toe Boots <input type="checkbox"/> HAZMAT Booties <input type="checkbox"/> Tyvek Booties <input type="checkbox"/> Leather Gloves <input type="checkbox"/> Gloves <input type="checkbox"/> Nitrile Liners <input type="checkbox"/> High Vis Gloves <input type="checkbox"/> Safety Vest <input type="checkbox"/> Half-face respirator <input type="checkbox"/> Full-face respirator <input type="checkbox"/> Cartridge		
	<input checked="" type="checkbox"/> Hard Hat <input checked="" type="checkbox"/> Safety Glasses <input type="checkbox"/> Goggles <input type="checkbox"/> Face Shield <input type="checkbox"/> Ear Plug/Muffs <input checked="" type="checkbox"/> Long sleeve shirt or coveralls <input type="checkbox"/> PFD <input type="checkbox"/> Tyvek <input type="checkbox"/> Rain Gear <input type="checkbox"/> Nomex <input type="checkbox"/> Acid Suit <input checked="" type="checkbox"/> Steel Toe Boots <input type="checkbox"/> HAZMAT Booties <input type="checkbox"/> Tyvek Booties <input type="checkbox"/> Leather Gloves <input type="checkbox"/> Gloves <input type="checkbox"/> Nitrile Liners <input type="checkbox"/> High Vis Gloves <input type="checkbox"/> Safety Vest <input type="checkbox"/> Half-face respirator <input type="checkbox"/> Full-face respirator <input type="checkbox"/> Cartridge		
<b>OTHER SPECIALIZED PPE</b>			
<input type="checkbox"/> Mira Cool <input type="checkbox"/> Knee Pads <input type="checkbox"/> Full Harness <input type="checkbox"/> Metatarsal Guards <input type="checkbox"/> Welding Jacket <input type="checkbox"/> Welding Chaps <input type="checkbox"/> SCBA / Airline			
<input type="checkbox"/> Lanyard-_____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____			





## **ATTACHMENT 1**

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### **SITE MAP**



S:\01\0006 Lower-Duamish\_Various\A0006 154 T117\Working\_MXD\0606\Design\Fig2 Excavation\_Yards 10292012.mxd 10/29/2012 2:27:45 PM





## **ATTACHMENT 2**

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### **HIGHLINE MEDICAL CENTER HOSPITAL ROUTE MAP**







## **ATTACHMENT 3**

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### **SEA MAR COMMUNITY HEALTH CENTER ROUTE MAP**





## **MATERIAL SAFETY DATA SHEET**

**(POLYCHLORINATED BIPHENYLS)**

### **COMPOSITION/INFORMATION ON INGREDIENTS**

Ingredients Name: polychlorinated biphenyls (PCBs)

### **HAZARD IDENTIFICATION**

Reports of Carcinogenicity: YES

### **HEALTH HAZARDS ACUTE AND CHRONIC**

- **Eyes**: Moderately irritating to eye tissues.
- **Skin**: Can be absorbed through intact skin, may cause de-fatting, potential for chloracne.
- **Inhalation**: Possible liver injury.
- **Ingestion**: Slightly toxic; reasonably anticipated to be carcinogenic.

### **EFFECTS OF OVER-EXPOSURE**

Can cause dermatological symptoms; however, these are reversible upon removal of exposure source.

### **FIRST AID MEASURES**

- **Eyes**: Irrigate immediately with copious quantities of running water for at least 15 minutes if liquid or solid PCBs get into them.
- **Skin**: Contaminated clothing should be removed and the skin washed thoroughly with soap and water. Hot PCBs may cause thermal burns.
- **Inhalation**: Remove to fresh air; if skin rash or respiratory irritation persists, consult a physician (if electrical equipment arcs over, PCBs may decompose to produce hydrochloric acid).
- **Ingestion**: Consult a physician. Do not induce vomiting or give any oily laxatives. (If large amounts are ingested, gastric lavage is suggested).

**FIRE FIGHTING MEASURES**: Flash Point: >141 °C (285.8 °F)

**EXTINGUISHING MEDIA**: PCBs are fire-resistant compounds.



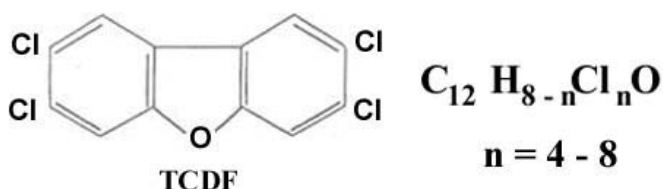
## **FIRE-FIGHTING PROCEDURES**

Standard fire-fighting wearing apparel and self-contained breathing apparatus should be worn when fighting fires that involve possible exposure to chemical combustion products. Fire fighting equipment should be thoroughly cleaned and decontaminated after use.

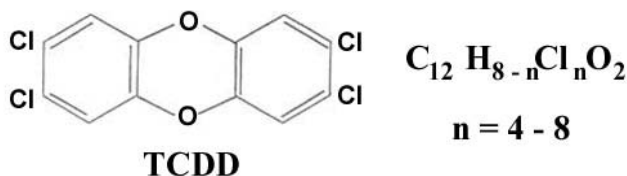
## **UNUSUAL FIRE/EXPLOSION HAZARD**

If a PCB transformer is involved in a fire-related incident, the owner of the transformer is required to report the incident. Consult and follow appropriate federal, provincial and local regulations.

***Note:*** When askarel liquid becomes involved in a fire, toxic by-products of combustion are typically produced including polychlorinated dibenzofurans and polychlorinated dibenzodioxins, both known carcinogens. The structures of these chemical species are as follows:



**2,3,7,8-tetrachlorodibenzofuran**



**2,3,7,8-tetrachloro-dibenzo-p-dioxin**

***Note:*** 2,3,7,8-tetrachloro-dibenzo-p-dioxin is one of the most potent teratogenic, mutagenic and carcinogenic agents known to man.

## **SPILL RELEASE PROCEDURES**

Cleanup & disposal of liquid PCBs are strictly regulated by the federal government. Ventilate area. Contain spill/leak. Remove spill by means of absorptive material. Spill clean-up personnel should use proper protective clothing. All wastes and residues containing PCBs should be collected, containerized, marked and disposed of in the manner prescribed by applicable federal, provincial and local laws.

## **HANDLING AND STORAGE PRECAUTIONS**

Care should be taken to prevent entry into the environment through spills, leakage, use, vaporization, or disposal of liquid. Avoid prolonged breathing of vapours or mists. Avoid contact with eyes or prolonged contact with skin. Comply with all federal, provincial and local regulations.

## **OTHER PRECAUTIONS**

Federal regulations require PCBs, PCB items, storage areas, transformer vaults, and transport vehicles to be appropriately labelled.

## **RESPIRATORY PROTECTION**

Use OSHA approved equipment when airborne exposure limits are exceeded. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical splash goggles. The respirator use limitations specified by the manufacturer must be observed.

## **VENTILATION**

Provide natural or mechanical ventilation to control exposure levels below airborne exposure levels.

**PROTECTIVE GLOVES:** Wear appropriate chemical resistant gloves to prevent skin contact.

**EYE PROTECTION:** Wear chemical splash goggles and have eye baths available.

## **OTHER PROTECTIVE EQUIPMENT**

Wear appropriate protective clothing. Provide a safety shower at any location where skin contact can occur.

## **WORK HYGIENIC PRACTICES**

Wash thoroughly after handling. Supplemental safety and health : none

## **PHYSICAL/CHEMICAL PROPERTIES**

- **Vapour pressure:** (mm Hg @100 °F) 0.005 - 0.00006
- **Viscosity:** (CENTISTOKES) 3.6 - 540
- **Stability indicator/materials to avoid:** Yes
- **Stability Condition to Avoid:** PCBs are very stable, fire-resistant compounds.

## **HAZARDOUS DECOMPOSITION PRODUCTS**

Carbon monoxide, carbon dioxide, hydrogen chloride, phenolics, aldehydes, furans, dioxins

## **WASTE DISPOSAL METHODS**

Consult the applicable PCB regulations prior to any disposal of PCBs or PCB-contaminated items.

# **Chem Service Inc.**

## **Material Safety Data Sheet**

Date:05/08/2012

**Last Revision Date: 01/05/2010**

### **SECTION 1 - CHEMICAL PRODUCT and COMPANY IDENTIFICATION**

Catalog Number: F111

Description: Arochlor 1254

Other Names: Polychlorinated biphenyl-54% chlorine

Supplied by CHEM SERVICE, Inc. PO BOX 599, WEST CHESTER, PA 19381 (610)-692-3026  
EMERGENCY PHONE: 1-610-692-3026

### **SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS**

CAS: 11097-69-1

Description: Arochlor 1254

EINECS No:

Hazard Symbols: N/A

Molecular Weight:

Molecular Formula:

### **SECTION 3 - HAZARDS IDENTIFICATION**

Contact lenses should not be worn in the laboratory

Suspected Carcinogen-may produce cancer.

Can cause chloracne.

Can cause gastro-intestinal disturbances.

Can cause eye irritation.

Vapors can cause severe eye inflammation and swelling of adjoining tissues.

Exposure can cause liver damage.

Can cause discoloration of nails/skin/etc.

Can cause delayed adverse health effects.

### **SECTION 4 - FIRST AID MEASURES**

An antidote is a substance intended to counteract the effect of a poison. It should be

administered only by a physician or trained emergency personnel. Medical advice can be

obtained from a POISON CONTROL CENTER.

In case of contact: Flush eyes continuously with water for 15-20 minutes. Flush skin with water for 15-20 minutes.

If no burns have occurred-use soap and water to cleanse skin.

If inhaled remove patient to fresh air. Administer oxygen if patient is having difficulty

breathing.

If patient has stopped breathing administer artificial respirations.

If patient is in cardiac arrest administer CPR.

Continue life supporting measures until medical assistance has arrived.

Remove and wash contaminated clothing.

If patient is exhibiting signs of shock - Keep warm and quiet.

Contact Poison Control Center immediately if necessary.

Do not administer liquids or induce vomiting to an unconscious or convulsing person.

Induce vomiting if swallowed.

If patient is vomiting-watch closely to make sure airway does not become obstructed by vomit.

Get medical attention if necessary.

## **SECTION 5 - FIRE AND EXPLOSION DATA**

Flash Point:

222 C

Extinguishing Media:

Carbon dioxide, dry chemical powder or spray.

Upper Explosion Limit:

N/A

Lower Explosion Limit:

N/A

Auto Ignition:

N/A

NFPA Hazard Rating:

Health

Flammability

Reactivity

Special

0 - Least, 1 - Slight, 2 - Moderate, 3 - High, 4 - Severe

## **SECTION 6 - ACCIDENTAL RELEASE MEASURES**

Spills or leaks: Evacuate area. Wear appropriate OSHA regulated equipment. Ventilate area.

Absorb on vermiculite or similar material.

Sweep up and place in an appropriate container.

Hold for disposal.

Wash contaminated surfaces to remove any residues.

Remove contaminated clothing and wash before reuse.

## **SECTION 7 - HANDLING AND STORAGE**

### **Handling:**

This chemical should be handled only in a hood. Eye shields should be worn.

Use appropriate OSHA/MSHA approved safety equipment.

Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation

Wash thoroughly after handling.

### **Storage:**

Store in a cool dry place.

Store in a cool dry place. Store only with compatible chemicals. Store only with compatible chemicals. Keep tightly closed.

## SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA PEL (TWA):  
0.5 mg/m<sup>3</sup> skin

ACGIH TLV (TWA):  
0.5 mg/m<sup>3</sup> skin

ACGIH TLV (STEL):  
N/A

Personal Protective Equipment

Eyes: Wear Safety Glasses.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to minimize contact with skin.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 requirements must be followed whenever workplace conditions warrant a respirator's use.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Color: **Light Yellow**

Phase: **Liquid**

Melting Point: **10 C**

Boiling Point: **365-390 C**

Specific Gravity: **1.505**

Vapor Density: **N/A**

Vapor Pressure: **0.00006 mm C**

Solubility in water: **Insoluble (immiscible)**

Odor: **N/A**

Evaporation Rate: **N/A**

Molecular Weight:

Molecular Formula:

## SECTION 10 - STABILITY AND REACTIVITY

Incompatible with strong oxidizing agents.

Incompatible with active metals (e.g. Sodium).

## SECTION 11 - TOXICOLOGY INFORMATION

RTECS: TQ1360000

<u>Oral Rat or Mouse LD50:</u>	<u>Dermal Rat or Mouse LD50:</u>	<u>Rat or Mouse LC50:</u>
1010	> N/A	N/A

Carcinogenicity

<u>OSHA:</u>	<u>NTP:</u>	<u>IARC:</u>	<u>CARC:</u>	<u>NIOSH:</u>	<u>ACGIH:</u>
No	Yes	Yes	No	Yes	No

California Proposition 65 info:

## SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity: Not Available

Environmental Fate: Not Available

## SECTION 13 - DISPOSAL CONSIDERATIONS

Burn in a chemicals incinerator equipped with an afterburner and scrubber.

## SECTION 14 - TRANSPORTATION INFORMATION

<u>UN Number:</u>	<u>Class:</u>	<u>Packing Group:</u>	<u>Proper Shipping Name:</u>
UN2315	9	II	Polychlorinated biphenyls

## SECTION 15 - REGULATORY INFORMATION

European Labeling in Accordance with EC Directives  
Hazard Symbols: N/A

Risk Phrases:

Safety Phrases:

## SECTION 16 - OTHER INFORMATION

The above information is believed to be correct on the date it was last revised and must not be considered all inclusive. The information has been obtained only by a search of available literature and is only a guide for handling the chemicals. OSHA regulations require that if other hazards become evident, an upgraded MSDS must be made available to the employee within three months. RESPONSIBILITY for updates lies with the employer and not with CHEM SERVICE, Inc.

Persons not specifically and properly trained should not handle this chemical or its container. This product is furnished FOR LABORATORY USE ONLY! Our products may NOT BE USED as drugs, cosmetics, agricultural or pesticide products, food additives or as household chemicals.

This Material Safety Data Sheet (MSDS) is intended only for use with Chem Service, Inc. products and should not be relied on for use with materials from any other supplier even if the chemical name(s) on the product are identical! Whenever using an MSDS for a solution or mixture the user should refer to the MSDS for every component of the solution or mixture. Chem Service warrants that this MSDS is based upon the most current information available to Chem Service at the time it was last revised. THIS WARRANTY IS EXCLUSIVE, AND CHEM SERVICE, INC. MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. This MSDS is provided gratis and CHEM SERVICE, INC. SHALL NOT BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR CONTINGENT DAMAGES.

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otherwise stored or distributed in electronic or any other form.

This product is furnished FOR LABORATORY USE ONLY!



# Material Safety Data Sheet

ULTRA Scientific · 250 Smith Street · North Kingstown, RI, USA 02852 · 401-294-9400

Product #: RPE-029S

Last Update: 4/27/2009

## Section I Product Identification

Name: 2,3,7,8-Tetrachlorodibenzo-p-dioxin Solution

Solvent : toluene

## Section II Composition / Information on Ingredients

Component	CAS#	% by Wt.	LD50	OSHA PEL	ACGIH TLV	RTECS #	Codes
toluene	000108-88-3	99.99885	5000 mg/kg oral rat	200 ppm	50 ppm	XS5250000	GH
2,3,7,8-tetrachlorodibenzo-p-dioxin	001746-01-6	0.00115	N/A	N/A	N/A	N/A	DF

Codes: A-OSHA regulated carcinogen; B-IARC Group 1 carcinogen; C-IARC Group 2A carcinogen; D-IARC Group 2B carcinogen; E-NTP Group 1 carcinogen; F-NTP Group 2 carcinogen; G-SARA Title III compound; H-California Proposition 65 compound.

## Section III Hazards Identification

Contains carcinogen(s) or cancer suspect agent(s)

Toxic; irritant

All chemicals should be considered hazardous - direct physical contact should be avoided.

## Section IV First Aid Measures

Inhalation: If inhaled, remove to fresh air. Give oxygen, if necessary. Contact a physician.

Skin: In case of skin contact, flush with copious amounts of water. Remove contaminated clothing.

Contact: Contact a physician.

Eye: In case of eye contact, flush with copious amounts of water, lifting eyelids occasionally. Contact a physician.

Ingestion: If ingested, contact poison center immediately for recommended procedure. Contact a physician.

## Section V Fire Fighting Measures

Fire and Explosion Hazard Data for Solvent

Fire Hazard: flammable

Extinguishing Media: Carbon dioxide, dry chemical powder, or water spray.

## Section VI Accidental Release Measures

Ventilate area of the leak or spill. Wear appropriate personal protective equipment as specified in Section VIII. A leaking bottle, vial, or ampule may be placed in a plastic bag, and normal disposal procedures followed. Take up spilled material with sand or other non-combustible absorbant material, and place in an appropriate container for later disposal. Flush spill area with water.

## Section VII Handling and Storage

Store at Room Temperature (18-25°C)

Keep in a tightly closed container, and store in a corrosion proof area.

This product should only be used by persons trained in the safe handling of hazardous chemicals.

## **Section VIII Exposure Controls / Personal Protection**

Ensure that there is adequate ventilation to prevent airborne levels from exceeding recommended exposure limits (see Section II). Use appropriate MSHA/NIOSH approved safety equipment. Wear chemical goggles, face shield, gloves, and chemical resistant clothing, such as a laboratory coat and/or a rubber apron, to prevent contact with eyes, skin, and clothing.

## **Section IX Physical and Chemical Properties**

Physical Data for Solvent

Melting Pt.: -94.5°C

Boiling Pt.: 110.4°C

Density: 0.866

Vapor Pressure: 36.7 mmHg @ 30°C

Vapor Density: 3.1

Water Solubility: insoluble

Appearance: colorless liquid

Odor: benzene-like odor

Flash Point: 40°F

Auto-Ignition Temperature: 896°F

LEL: 1.3

UEL: 7

## **Section X Stability and Reactivity**

Reactivity Data for Solvent

Stability: stable

Incompatibilities:

strong oxidizers

Hazardous Decomposition Products: N/A

Hazardous Effects of Polymerization: none

## **Section XI Toxicological Information**

See Section II for specific toxicological information for the ingredients of this product.

## **Section XII Ecological Information**

No information is available.

## **Section XIII Disposal Considerations**

Recycle, if possible. Any material which cannot be saved for recovery or recycling should be disposed of at an appropriate and approved waste disposal facility. Processing, use, and/or contamination of this product may change waste management requirements. Observe all applicable federal, state, and local environmental regulations concerning disposal.

## **Section XIV Transport Information**

Shipment Type: Flammable liquids, n.o.s. (toluene)

UN Number: UN1993

Shipping Class: 3

Packing Group: II

## **Section XV Regulatory Information**

Warning: This product contains a chemical known to the state of California to cause birth defects or other reproductive harm.

EU Directives Classification

R: 11-20

Risk Statements: Highly flammable. Harmful by inhalation.

S: 16-25-29-33

Safety Statements: Keep away from sources of ignition -- No smoking. Avoid contact with eyes. Do not empty into drains. Take precautionary measures against static discharges.

#### **Section XVI      Other Information**

The above information is believed to be correct, but does not purport to be all-inclusive. This data should be used only as a guide in handling this material. ULTRA Scientific, Inc., shall not be held liable for any damage resulting from handling or from contact with the above product.

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## APPENDIX F

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### TRAFFIC CONTROL CHECKLIST

# Seattle Permits

— part of a multi-departmental City of Seattle series on getting a permit

## Steps to an Approved Traffic Control Plan

December 17, 2010

A Traffic Control Plan (TCP) is a plan for safety in the public right-of-way (ROW) and is designed and implemented by all those who perform work on an arterial street. The TCP provides safe and effective work areas and warns, controls, protects and expedites vehicular, bicycle and pedestrian traffic. Permit applicants are required to submit a TCP at application intake if the work involves impacts to the arterial ROW. Your TCP will be reviewed by the City Traffic Engineer for conformance with the City of Seattle Manual for In-Street Work

This Client Assistance Memo (CAM) is intended to provide you with a step-by-step process for developing a TCP for inclusion with your Street Use Permit application that will fulfill all requirements and allow for speedy approvals. When everything is submitted properly, your TCP can be approved in ten business days.

All General Contractors will be required to submit TCPs for all sub-contractors.

Please follow these steps for the fastest path to approval:

### Stage I: Pre-Submittal Research

At the Street Use permit application submittal phase you may need to submit: 1) a Site Plan, 2) a Restoration Plan, 3) a Traffic Control Plan and 4) a deposit. You should complete much of this work prior to submittal. Follow these steps:

1. Obtain a Street Use Permit Application at [http://www.seattle.gov/transportation/stuse\\_permits.htm](http://www.seattle.gov/transportation/stuse_permits.htm)
2. Obtain a Traffic Control Plan Checklist at [http://www.seattle.gov/transportation/stuse\\_docs.htm](http://www.seattle.gov/transportation/stuse_docs.htm)
3. Obtain a Traffic Control Template at [http://www.seattle.gov/transportation/stuse\\_docs.htm](http://www.seattle.gov/transportation/stuse_docs.htm)

4. Obtain a Channelization Plan from the Street Use Counter at the time of submittal (or before, if you are able).
5. Using your Channelization Plan and your Traffic Control Plan Check list, draw your Traffic Control Plan. You can do this prior to submission, or you can do this work at the table in the Street Use lobby immediately before submitting your application. Forms and a computer for on-line assistance are available in the Street Use lobby, located in the Seattle Municipal Tower, 700 5th Avenue, Suite 3700, Seattle, WA 98104.

### Stage II: Submit Application Packet

Gather your completed Application, Site Plan, Restoration Plan, Traffic Control Plan and your deposit for submittal:

1. In person: Seattle Municipal Tower, 700 5th Avenue, Suite 3700, Seattle, WA 98104
2. To submit application materials on-line, go to [http://www.seattle.gov/transportation/stuse\\_permits\\_online.htm](http://www.seattle.gov/transportation/stuse_permits_online.htm)
3. Via email: [sdotpermits@seattle.gov](mailto:sdotpermits@seattle.gov)
4. Via US Postal Service: City of Seattle, Seattle Department of Transportation, Street Use Division, PO Box 34996, Seattle, WA 98124.

### Stage III: Approval

As soon as your permit is approved, you will be notified by SDOT Street Use.

### Additional Information Resources:

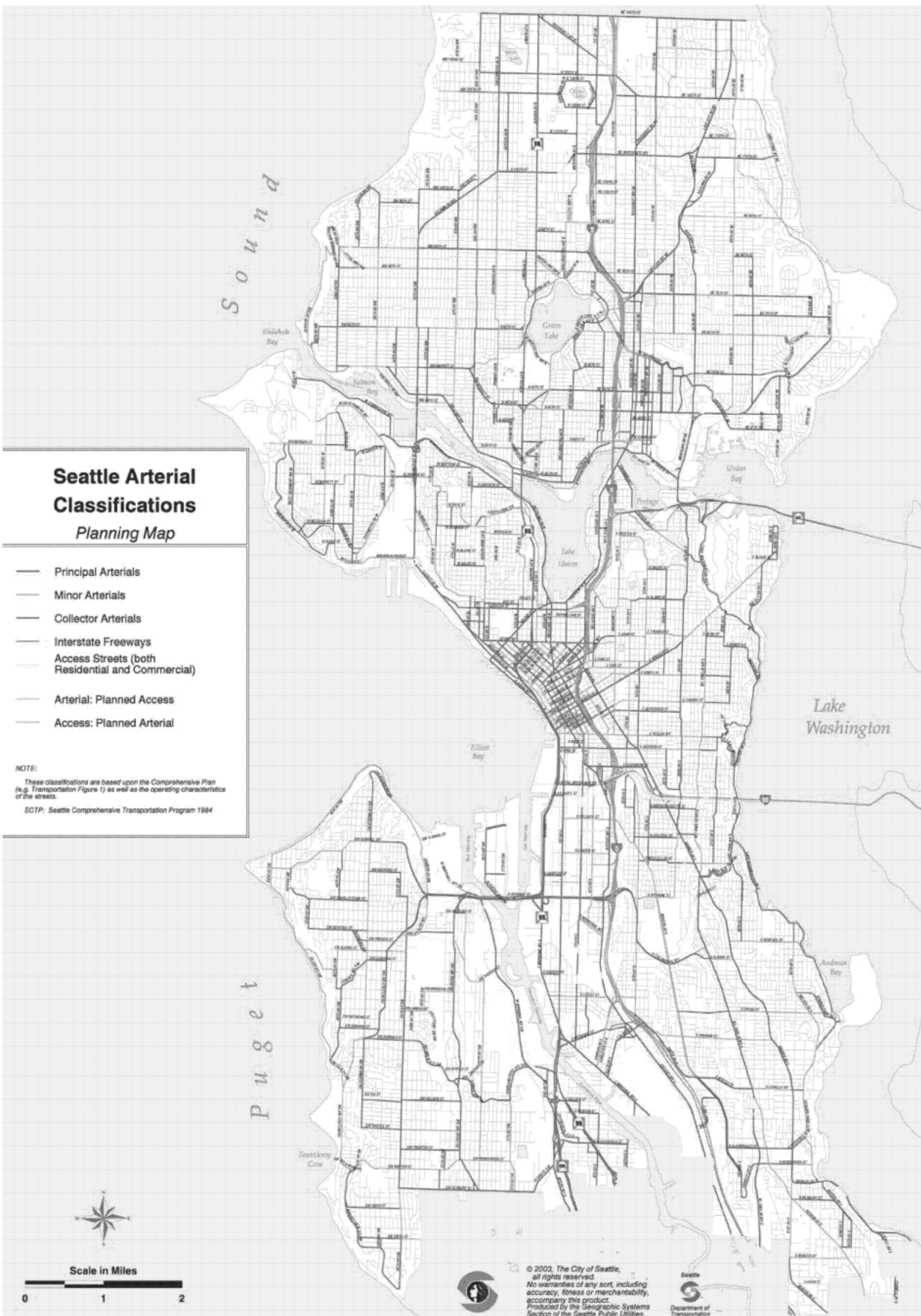
1. The SDOT Street Use home page [http://www.seattle.gov/transportation/stuse\\_home.htm](http://www.seattle.gov/transportation/stuse_home.htm)
2. To determine the amount of deposit, click on the Use Code List (CAM 2100) on the SDOT Street Use home page.
3. The permit counter can be reached by phone at 206-684-5283, however priority is given to walk-in customers.
4. Evergreen Safety Council provides classes on traffic control. Contact them at (206) 382-4090 or <http://www.esc.org/index.htm>

[www.seattle.gov/transportation](http://www.seattle.gov/transportation)



City of Seattle  
Seattle Department of Transportation

700 5th Avenue, Suite 3900  
P.O. Box 34996  
Seattle, WA 98124-4996  
(206) 684-ROAD (7623)



**LEGAL DISCLAIMER:** This Client Assistance Memo (CAM) should not be used as a substitute for codes and regulations. The applicant is responsible for compliance with all code and rule requirements, whether or not described in this CAM.

Last Revised 1/4/2011



# Seattle Permits

— part of a multi-departmental City of Seattle series on getting a permit

## Checklist for Traffic Control Plan Submittal

Revised 3/10/2010

Permit applicants are **required** to submit a traffic control plan at application intake, if the work involves impacts to arterial Right-of-Way (ROW) or on any streets within the High Impact Area defined as Mercer Street to the north, South Spokane Street to the south, Interstate 5 to the east and Elliott Bay to the west. This checklist should be used as a tool to create a traffic control plan (TCP) for submittal and approval by the City of Seattle Department of Transportation (SDOT).

### 1. General Requirements:

- Label plan: "Traffic Control Plan." Include Street Use permit number on top right corner of plan
- Note hours of work, and type of work.
- Include Contact name, company, phone and fax number on the plan.

### 2. Existing Conditions:

- Refer to City of Seattle Traffic Control Manual for In-Street Work. The latest edition of the manual is available at the SMT 23<sup>rd</sup> floor (Street Use) and 37<sup>th</sup> floor (Traffic Management) permit counters, or at the following link:  
<http://www.seattle.gov/transportation/trafficcontrolmanual.htm>
- Utilize the channelization sketches whenever available as base map. These are available by contacting Street Use or Traffic Management. If a channelization sketch does not exist for the area of interest, you will be required to prepare a base map showing an accurate representation of the street layout including but not limited to information such as channelization lines, lane widths, curbs, sidewalks, ROW limits, adjacent property address to the work site, street names, centerline, north arrow.
- Note current business access and activities, special needs (e.g. schools, churches).
- Show physical features – grades, curves, medians.

- Note Metro (or other) bus stops and overhead trolley lines. You are required to contact King County Metro at (206) 684-2732 when either is present.
- Note bicycle lanes, and include alternative bike routing as part of the plan.
- Show existing traffic controls –e.g. speed limits, other street work, signals, all- way stops.
- Show visibility restrictions - e.g. street furniture, trees, poles, mailboxes.
- Coordinate traffic control at Seattle City limit with appropriate jurisdiction (King County Traffic Engineer, tel. 206-344-2696 or WSDOT – CTCO office, tel. 206-440-4471, or Shoreline at 206-546-5795).
- Show curb space use, such as load zones, parking restrictions

### 3. Temporary Traffic Control Revisions:

- Draw footprint of work zone, with dimensions, and location to fixed points such as crosswalks. Note that your work zone includes the staging area.
- Note on the TCP where pedestrians are blocked or affected. Route pedestrians with a minimum of 4' width pathway (add 18" buffer from curb face) and use of ramps.
- Show revised traffic lane widths (one lane each way shall not be less than 11' when each lane is adjacent).
- Note problems of access to abutting property and show mitigation.
- If work cannot be completed by end of shift, include after hours traffic control plan as separate attachment. Traffic conditions may vary throughout the day and week. You may be required to submit additional TCP if your work impacts more than one condition.
- Identify the type, number and location of signs, and channelizing devices, including any specially worded signs or other special devices which may be necessary. Note flaggers or Uniformed Police Officers.

[www.seattle.gov/transportation](http://www.seattle.gov/transportation)



City of Seattle  
Seattle Department of Transportation

700 5<sup>th</sup> Avenue, Suite 2300  
P.O. Box 34996  
Seattle, WA 98124-4996  
(206) 684-ROAD (7623)

## APPENDIX G

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### TESTING PLAN AND LOG

## TESTING PLAN AND LOG

CONTRACT NUMBER Enter Contract # Here			PROJECT TITLE AND LOCATION Enter Contract Title and Location Here							CONTRACTOR Enter Contractor's Company Name Here	
SPECIFICATION SECTION AND PARAGRAPH NUMBER	SCHEDULE ACTIVITY ID	TEST REQUIRED	ACCREDITED/ APPROVED LAB		SAMPLED BY	TESTED BY	LOCATION OF TEST		DATE COMPLETED	DATE FORWARDED TO CONTR. OFF.	REMARKS
			YES	NO			ON SITE	OFF SITE			